

the input circuitry, the supply to the IC or the IC itself.

Similarly, check the voltage at pin 4 of IC1. This should also be close to half supply. If not, one of the above mentioned faults must exist.

Assuming that IC1 checks OK, measure some voltages around the power amplifier. These should be in the vicinity of 3.4V at the collector of Q1, 4.7V at the base of Q3 and 4.5V at its emitter. The voltage at the base of Q4 should be about 3.7V. If all of these voltages appear to be correct, repeat the whole exercise for the other channel and then repeat with the plugs replaced.

If at any stage you measure a voltage which departs significantly from the above values, be sure to correct it before continuing the test.

Advice on buying a personal computer

I would like to make a few enquiries concerning home computers as I am considering obtaining one for myself. I have read your article in the June 1984 issue and other articles published on home computers. However, I feel I could use some expert advice as to the type of computer that would best suit my needs.

The computer I would like would need to be able to provide control of home appliances, personal programs, financial affairs and entertainment. My enquiries made at various stores and the types of computers were Commodore 64, Vic 20, Atari, Tandy TRS 80 and Dick Smith Cat. The various salesmen recommended their own computer and I found some parts unavailable. Several also did not have circuit diagrams available for study.

So as you can see I have a dilemma as to which computer is really best suited to my needs and the availability of parts. I would appreciate any advice you may be able to offer me. (G.K., St Agnes, SA).

• You are certainly not alone in your dilemma. All the machines you mention could probably be adapted to suit your needs but inevitably, you won't be fully aware of the possibilities until you have had some months of experience with a computer.

With that in mind, perhaps the best approach is to buy a very cheap machine such as the Dick Smith VZ200 or Tandy Model 100. This way you will only invest a small amount of money in a learning experience.

After buying and using a cheap machine for several months you may find that it has all the facilities you need.

No output from stereo simulator

I have built the stereo simulator, April 1983 but it is not working as planned. The input is from a Sanyo TV earphone mono socket and the outputs are connected to aux input of an amplifier. When on the only sound coming from the amp is a highly static version of the local radio station.

The voltages of the op amps are 12V at pin 7 and 6V at pin 6. The sound of the radio station is only heard when the input of the simulator is connected to the TV. (C.W., Warilla, NSW).

• The fact that the DC voltages in the circuit are correct indicates that both op amps are working. You probably have an open circuit in either the input or the output of the circuit. Check the board very carefully for hairline cracks or poor solder joints.

Notes & Errata

ELECTRONIC MULTIMETER (October 1984, 7/M/66): As presented, the circuit will not work properly when measuring AC current. The input coupling capacitor is far too small for this mode. The simplest solution is to short out S3a and omit the 0.1µF capacitor across it. This means that an external DC blocking capacitor will be needed if measuring AC voltages which are superimposed on DC.

SCAN AUSTRALIA

WITH WORLD'S BEST SCANNING RECEIVERS



AR2001

FOR THE BEST PRICE IN
TOWN. FOR THE BEST
SCANNER IN AUSTRALIA

**WORLD'S FIRST CONTINUOUS COVERAGE
THREE MODE COMMUNICATIONS RECEIVER
& SCANNER**

Features

- 25-550 MHz Continuous
- NBFM — For Communications
- WBFM — For BC8TV monitoring
- AM For Air Band
- 20 CH Memory
- Clock Priority CH

\$499

POCKET SIZE SCANNER

SC-4000

**NO COMPROMISE PROGRAMMABLE
HAND-HELD SCANNER THAT
EVERYBODY CAN AFFORD!**

FEATURES:

- 160 MEMORY CHANNELS
- 9 BAND — POLICE, GOVERNMENT, MILITARY, LAND MOBILE, CB, AMATEUR, RADIO TELEPHONE ETC.
- OVER 45,000 CHANNELS
- UNIQUE SPLIT PROGRAMMING SYSTEM
- AUTOMATIC FREQ. STORAGE
- PRIORITY CHANNEL
- LCD DISPLAY
- PROG. SCAN/SEARCH RATE
- 24 HOUR CLOCK AND MANY OTHER FEATURES

SPECIFICATIONS:

- FREQ. RANGE: 26-238MHz, 68-88MHz, 138-176MHz;
- 380-512 MHz
- SENSITIVITY: 0.5µV/1µV depending on Band
- SCAN RATE: 18 CH/SEC
- AUDIO OUTPUT: 0.5W

COMES COMPLETE WITH NICAD
BATTERY, CHARGER AND
ANTENNA

ONLY \$399



NEW Personal 2-way
radio here at last!

"EMTRON ACE"

A QUALITY 40-CH HIGH POWER UHF CB HAND-HELD
TRANSCIVER • DESIGNED FOR AUSTRALIA
DOC APPROVED

FEATURES:

- 40 CHANNEL OPERATION
- HIGH (2.5W) LOW (0.5W) RF OUTPUT
- OFFSET FOR REPEATER OPERATION
- NICAD RECHARGEABLE BATTERIES
- ILLUMINATED DIAL FOR NIGHT OPERATION
- SMALL IN SIZE — BIG IN PERFORMANCE

APPLICATIONS:

- FARMING
- FISHING, BOATING, HUNTING, BUSHWALKING
- BUSH FIRE CONTROL
- AG SHOWS
- SECURITY
- CONSTRUCTION SITES
- CAR RALLIES
- CROWD CONTROL AND MANY OTHERS

DEALER INQUIRIES WELCOME

ONLY \$399



EMTRONICS

Retail Division of EMOHA ELECTRONICS P/L

All Mail to: PO Box K21, Haymarket, NSW 2000
Ph: (02) 211 0531 Ph: (02) 211 9988
94 Wentworth Ave, Sydney, 2000.

FOR SALE

TAPE REC PRO MACHINE: Large selection some suit conv to multitrack \$100.00-\$400.00, Waltham Dan, 96 Oxford St, Darlinghurst, Sydney (02) 331 3360.

CPM USERS GROUP: Disks, to vol 93 sig/m to vol 192 8" ssd \$9, Microbee, Kaypro, Xerox, Osborne, Excalibur 64, IBM, Dec R/Bow \$10. Other formats available. Catalogue on disk \$10, Hard copy \$12. CPMUG only \$8.00 P+P \$1. R.B. Archer & Assoc, PO Box 696, Ringwood, Victoria 3134.

VZ200 SOFTWARE: Cash book ledger, Assembler, Utilities, Hardware tips etc. Send SAE to JCE D'Alton, 39 Agnes St, Toowoong, QLD 4066.

EXPERIMENTERS: Wide range of electronic kits and bits available. Contact: Bridge Road Electronic Discounts, 508 Bridge Road, Richmond Victoria 3121.

NEW RADIO VALVES: For entertainment or industrial use. Waltham Dan, 96 Oxford St, Darlinghurst, Sydney. Phone (02) 331 3360.

SWITCH MODE SUPPLIES

MARTIN GRIFFITH

all makes & models serviced
(backlogs cleared)

Telephone (02) 660 7507

No. 8 The Crescent, Annandale, NSW

JUST WHAT ARE YOU MISSING OUT ON? LOOK AT THIS! 844b5 E.A. DELUXE BURGLAR ALARM PLUS 844b6 MOVEMENT DETECTOR PLUS 2 DETECTOR STICKERS ONLY \$16.90 THE LOT!! ETI 166a FUNCTION GENERATOR ONLY \$15.00!!! WANT TO KNOW WHAT ELSE YOU'RE MISSING OUT ON? SEND LARGE S.A.E. FOR FREE CATALOGUE.
ELECTRONICS PCS, PO BOX 76, YAGOONA 2199. Telephone (02) 645 1241. WE WISH TO THANK OUR MANY CUSTOMERS WHO HAVE SUPPORTED US OVER THE LAST YEAR AND REAPED THE BENEFITS. MERRY XMAS ONE AND ALL!!

BLACKTOWN NEXT TO TELECOM OFFICE

Electronic Components
PC Boards, Computer Repairs
OPEN 7 DAYS
(02) 621 5809

39 Campbell St BLACKTOWN NSW

CQ ELECTRONICS

RCS Radio Pty Ltd

Tel. (02) 587 3491

IS THE ONLY COMPANY
WHICH MANUFACTURES AND
SELLS EVERY PCB & FRONT PANEL
published in EA and ETI

651 Forest Road Bexley 2207
AUSTRALIA

RING FOR INSTANT PRICES
24 HOUR TURNAROUND SERVICE

TV TO STEREO CONVERSION KITS: Now in stock. From \$64.00. For more info, send SAE to: Bridge Road Electronic Discounts, 508 Bridge Road, Richmond, Victoria 3121.

DISK DRIVES: Slim Line for Apple II, only \$225!! (incl). (Chinon-Japan). Insurance, 90 day warranty, postage, tax included. Disk interface card \$45, hobby card \$9.50, ribbon for CP80/EX80/BX80/DP80 etc. \$9.00, 1000 1/4W resistors \$10.00. Write for catalogue. Sultan Micro, PO Box 232, West Ryde, 2114.

EX-ABC AUDIO TAPES: 1/4" wide on 10 1/2" metal spool, \$6.85; plastic spool, \$5.85; 7" spool, \$2.25; 5" spool, \$1.25. Post extra. Also in stock: 1/4", 1" and 2" tapes. Waltham Dan, 96 Oxford St, Darlinghurst, Sydney. Phone (02) 331 3360.

AMIDON FERROMAGNETIC CORES: Large range for all receiver and transmitter applications. For data and price list send 105x220 SASE to: R.J. & U.S. Imports, PO Box 157, Mortdale, NSW 2223.

DISPLAY ADVERTS IN MARKETPLACE are available in sizes from a minimum of 2cm x 1 cm at \$15 for a col cm. Ad sizes may be increased up to a maximum of 10 col cms.

CLASSIFIED RATES \$3.60 for 40 letters or part thereof per insertion payable in advance. Minimum 80 letters.

CLOSING DATE is six weeks prior to the on-sale date. Issues are on sale the first Monday of each month.

TRANSISTORS: BC546, 547, 548, 549, 556, 15c ea, BD139 30c ea, 2N3055 90c ea, 5mm LEDs: red 10c ea, gm 14c ea, yellow 15c ea, IN4148 4c ea, Zeners: 1W 3.3V 8.2V 15c ea. Post and pack only \$1.00. L.M.F. Products, PO Box 384, Cootamundra 2590.

SCHUMANDAL RADIO: Test equipment Model FD450 (as new) c/w four freq. modules. Will sell \$7000 or best offer. Leasing may be arranged. Phone: (03) 850-6949.

SCANNER LISTINGS: 27-510Mhz. Over 1600 Vic stations listed in freq & alpha sort order. \$7.95 Kasp Electronics PO Box 408 Noble Park 3174.

SUPER 80 USERS: We now offer the largest and cheapest range of products for the Super 80. For detailed list, send S.A.E. to: Matrix Software, PO Box 291, Kensington 2033.

Continued on page 12

Make your own printed circuits and labels with:

(1) "THE MAXLIGHT" ULTRA VIOLET LIGHT EXPOSURE BOX

- Reproduces 150 x 180mm • Easily assembled kit • Instructions on UV processes

\$139.00

(2) THE ETCHING STATION

- Etches printed circuits, hands-free, in 10 minutes.

\$39.00

(3) THE SQUARECUTTER

- Cuts PC boards into rectangles without squaring, scribing, filing

\$39.00

Write or phone for brochure.

SESAME ELECTRONICS

Box 452, Prahran 3181.

(03) 527 8807

48 HOUR PCB SERVICE

Single Sided.....5c per cm²

Double Sided.....9c per cm²

(Minimum 100cm²)

DRILLING (0.8mm).....2c per hole

Send artworks on film or transparency P&P \$2.00

J.W.D. ELECTRONICS

Lot 26, Red Gables Road,

Box Hill, NSW 2765

Phone (045) 73 6097

DIGITAL THERMOMETERS

FULL KIT - \$49.95 INC. ASSM. PROBE, PAC TEC CASE & FRONT PANEL ASSEMBLED & GUARANTEED - \$74.50

MINIATURE 3 1/2 DIGIT D.M. MODULE (10mm HIGH DISPLAY)

PCB & DATA - \$7.95 TCS 7106 D.M. CHIP - \$11.95

LARGE 3 1/2 DIGIT L.C.D. DISP - \$8.95

ALL PRICES INCLUDE SITAX POST & PACK ADD \$2.75 PER ORDER

BANKCARD ACCEPTED

P.O. BOX 132

MELB. AIRPORT 3045

SUITE 10, 4TH FL, 422 COLLINS ST

MELBOURNE 3000. PH. 67 9619

TELEX: AA30625 (ME 1830)

LIC Instruments

VIDEOLAB TECHNICIAN (SENIOR)

Videolab is currently seeking a qualified TV Technician experienced in the maintenance of 1/4" VHS and Beta equipment. This position also involves the daily technical operation and maintenance of associated equipment within our large Home Video duplication plant. The successful applicant, will be responsible for the total technical operation, reporting directly to the Chief Engineer of the division. Salary negotiable and commensurate with age and experience. Please apply in the first instance to Ms. Vicki Morrison to arrange an interview.

VIDEOLAB

2 Clarendon Street, Artarmon NSW 2064.

Ph: (02) 439 5922

DO YOU WANT TO BE A RADIO AMATEUR?

The Wireless Institute of Australia, established in 1910 to further the interests of Amateur Radio, conducts a Correspondence Course for the A.O.C.P. and L.A.O.C.P. Examinations conducted by the Department of Communications. Throughout the Course, your papers are checked and commented upon to lead you to a successful conclusion. For further information, write to:

THE COURSE SUPERVISOR
W.I.A. (N.S.W. DIVISION)

P.O. Box 1066
PARRAMATTA, N.S.W. 2150.